FIL STNGUIDE COST IN U.S. DOLLARS FULL ESTIMATED COST	SINCE FILE ENTRY 42.77	TOTAL SESSION 42.98
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) CA SUBSCRIBER PRICE	SINCE FILE ENTRY -1.24	TOTAL SESSION -1.24

FILE 'STNGUIDE' ENTERED AT 12:54:00 ON 04 JUN 2002 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION. LAST RELOADED: May 31, 2002 (20020531/UP).

=> d his

(FILE 'HOME' ENTERED AT 12:47:40 ON 04 JUN 2002)

FILE 'BIOSIS, CABA, CAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH, USPATFULL, JAPIO' ENTERED AT 12:47:54 ON 04 JUN 2002

336 S RUNAWAY REPLICATION L1

16 S L1 AND CIS L2

9 DUP REM L2 (7 DUPLICATES REMOVED) L3

0 S L2 AND PIR L42 S L1 AND PIR L5

FILE 'STNGUIDE' ENTERED AT 12:54:00 ON 04 JUN 2002

ANSWER 1 OF 9 USPATFULL 2001:163042 USPATFULL ACCESSION NUMBER: Replication genes and gene products from small cryptic TITLE: plasmids and methods for constructing controlled-replication plasmid vectors Burian, Jan, Vancouver, Canada INVENTOR(S): Kay, William W., Victoria, Canada University of Victoria Innovation & Dev. Corp., British PATENT ASSIGNEE(S): Columbia, Canada (non-U.S. corporation) KIND DATE NUMBER US 6294372 B1 20010925 US 1998-42071 19980313 PATENT INFORMATION: 19980313 (9) APPLICATION INFO .: DATE NUMBER ______ US 1997-40722P 19970314 (60) PRIORITY INFORMATION: Utility DOCUMENT TYPE: GRANTED FILE SEGMENT: PRIMARY EXAMINER: Yucel, Remy LEGAL REPRESENTATIVE: Seed IP Law Group 11 NUMBER OF CLAIMS: EXEMPLARY CLAIM: 28 Drawing Figure(s); 13 Drawing Page(s) NUMBER OF DRAWINGS: 1991 LINE COUNT: CAS INDEXING IS AVAILABLE FOR THIS PATENT. The replication genes of small cryptic plasmids are isolated and used to construct controlled-replication plasmid vectors with the wide range of copy numbers controlled by defined helper plasmids. Controlledreplication vectors (RAMP vectors) can reach very high level of plasmid replication, which is not lethal to host unlike runaway replication vectors. 2001:163042 USPATFULL Replication genes and gene products from small cryptic plasmids and ΑN TΤ methods for constructing controlled-replication plasmid vectors Burian, Jan, Vancouver, Canada TN Kay, William W., Victoria, Canada University of Victoria Innovation & Dev. Corp., British Columbia, Canada PA (non-U.S. corporation) В1 20010925 US 6294372 PΙ 19980313 (9) US 1998-42071 AΙ US 1997-40722P 19970314 (60) PRAI Utility GRANTED EXNAM Primary Examiner: Yucel, Remy Seed IP Law Group LREP Number of Claims: 11 CLMN Exemplary Claim: 1 ECL 28 Drawing Figure(s); 13 Drawing Page(s) DRWN LN.CNT 1991 CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 2 OF 9 USPATFULL 2001:102581 USPATFULL ACCESSION NUMBER: Mammalian viral vectors and their uses TITLE: Beach, David H., Huntington Bay, NY, United States Hannon, Gregory J., Huntington, NY, United States INVENTOR(S): Conklin, Douglas, Huntington Bay, NY, United States Sun, Peiqing, Huntington, NY, United States Cold Spring Harbor Laboratory, Cold Spring Harbor, NY,

> NUMBER KIND DATE

United States (U.S. corporation)

PATENT ASSIGNEE(S):

20010703 В1 US 6255071 PATENT INFORMATION: 19970319 (8) US 1997-820931

Continuation-in-part of Ser. No. US 1996-716926, filed APPLICATION INFO .: RELATED APPLN. INFO.:

on 20 Sep 1996, now patented, Pat. No. US 6025192

Utility DOCUMENT TYPE: GRANTED FILE SEGMENT:

Elliott, George C. PRIMARY EXAMINER:

McGarry, Sean Foley, Hoag & Eliot LLP, Vincent, Matthew P., Olesen, ASSISTANT EXAMINER: LEGAL REPRESENTATIVE:

James T.

58 NUMBER OF CLAIMS: 1

EXEMPLARY CLAIM: 23 Drawing Figure(s); 23 Drawing Page(s) NUMBER OF DRAWINGS:

3094 LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention relates to methods and compositions for the elucidation of mammalian gene function. Specifically, the present invention relates to methods and compositions for improved mammalian complementation screening, functional inactivation of specific essential or non-essential mammalian genes, and identification of mammalian genes which are modulated in response to specific stimuli.

In particular, the compositions of the present invention include, but are not limited to, replication-deficient retroviral vectors, libraries comprising such vectors, retroviral particles produced by such vectors in conjunction with retroviral packaging cell lines, integrated provirus sequences derived from the retroviral particles of the invention and circularized provirus sequences which have been excised from the integrated provirus sequences of the invention. The compositions of the present invention further include novel retroviral packaging cell lines.

2001:102581 USPATFULL AN

Mammalian viral vectors and their uses TI

Beach, David H., Huntington Bay, NY, United States Hannon, Gregory J., Huntington, NY, United States IN Conklin, Douglas, Huntington Bay, NY, United States

Sun, Peiging, Huntington, NY, United States

Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, United States PΑ (U.S. corporation)

20010703 US 6255071 PΙ 19970319 (8)

Continuation-in-part of Ser. No. US 1996-716926, filed on 20 Sep 1996, ΑI RLI now patented, Pat. No. US 6025192

Utility DT

Primary Examiner: Elliott, George C.; Assistant Examiner: McGarry, Sean FS EXNAM

Foley, Hoag & Eliot LLP, Vincent, Matthew P., Olesen, James T. LREP

Number of Claims: 58 CLMN Exemplary Claim: 1 ECL

23 Drawing Figure(s); 23 Drawing Page(s) DRWN

LN.CNT 3094

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 3 OF 9 USPATFULL

2000:109548 USPATFULL ACCESSION NUMBER:

Cell-free system for initiation of DNA replication Laskey, Ronald Alfred, Cambridge, United Kingdom TITLE: INVENTOR(S):

Krude, Torsten, Cambridge, United Kingdom

Jackman, Mark Richard, Cambridge, United Kingdom Pines, Jonathan Noe Joseph, Cambridge, United Kingdom

Cancer Research Campaign Technology Limited, London, PATENT ASSIGNEE(S):

United Kingdom (non-U.S. corporation)

DATE KIND NUMBER

```
_______
                     US 6107042
WO 9749797
                                                20000822
PATENT INFORMATION:
                                           19971231
19990125
19970626
                       US 1999-214070
APPLICATION INFO .:
                       WO 1997-GB1751
                                               19990125 PCT 371 date
                                                19990125 PCT 102(e) date
                              NUMBER DATE
                        -----
PRIORITY INFORMATION: GB 1996-13418 19960626
                        Utility
DOCUMENT TYPE:
FILE SEGMENT: Granted PRIMARY EXAMINER: Horlick, Kenneth R.
LEGAL REPRESENTATIVE: Nixon & Vanderhye P.C.
NUMBER OF CLAIMS: 16
NUMBER OF DRAWINGS: 13 Drawing Figure(s); 6 Drawing Page(s) LINE COUNT: 1412
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A cell-free system for initiating DNA replication under cell cycle
       control includes S phase cytosol or a fraction thereof in which are
       incubated G1 phase nuclei, which are co-incubated with S phase nuclei or a fraction thereof and/or cyclins A and/or E complexed to their cognate
        cyclin dependent kinase (Cdk2). The system may be used to assay for
        substances which modulate DNA synthesis or initiation thereof, and which
        have therapeutic potential in a number of contexts.
        2000:109548 USPATFULL
        Cell-free system for initiation of DNA replication
 ΑN
 ΤI
        Laskey, Ronald Alfred, Cambridge, United Kingdom
 IN
        Krude, Torsten, Cambridge, United Kingdom
        Jackman, Mark Richard, Cambridge, United Kingdom
        Pines, Jonathan Noe Joseph, Cambridge, United Kingdom
        Cancer Research Campaign Technology Limited, London, United Kingdom
 PA
        (non-U.S. corporation)
                                 20000822
        US 6107042
 PΙ
        WO 9749797 19971231
                               19990125 (9)
        US 1999-214070
 AΤ
                               19970626
        WO 1997-GB1751
                                19990125 PCT 371 date
19990125 PCT 102(e) date
 PRAI GB 1996-13418 19960626
  DT
        Utility
  FS
        Granted
  EXNAM Primary Examiner: Horlick, Kenneth R.
  LREP Nixon & Vanderhye P.C.
  CLMN Number of Claims: 16
        Exemplary Claim: 1
  ECL
  DRWN 13 Drawing Figure(s); 6 Drawing Page(s)
  LN.CNT 1412
  CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       ANSWER 4 OF 9 USPATFULL
                      2000:61443 USPATFULL
                          Methods and vectors for site-specific recombination
  ACCESSION NUMBER:
                          McVey, Duncan L., Derwood, MD, United States
  TITLE:
                          Kovesdi, Imre, Rockville, MD, United States
  INVENTOR(S):
                          GenVec, Inc., Gaithersburg, MD, United States (U.S.
  PATENT ASSIGNEE(S):
                          corporation)
                                           KIND DATE
                               NUMBER
                           -----
   PATENT INFORMATION: US 6063627 20000516
APPLICATION INFO.: US 1998-30563 19980225 (9)
```

Continuation of Ser. No. WO 1996-US14123, filed on 27 RELATED APPLN. INFO.:

Aug 1996 which is a continuation-in-part of Ser. No. US

1995-522684, filed on 1 Sep 1995, now patented, Pat.

No. US 5801030

DOCUMENT TYPE: FILE SEGMENT:

Utility Granted

PRIMARY EXAMINER:

Brusca, John S.

LEGAL REPRESENTATIVE:

Leydig, Voit & Mayer, Ltd.

NUMBER OF CLAIMS:

62

EXEMPLARY CLAIM: NUMBER OF DRAWINGS: 50 Drawing Figure(s); 15 Drawing Page(s)

2982

LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention provides methods for site-specific recombination in a cell, as well as vectors which can be employed in such methods. The methods and vectors of the present invention can be used to obtain persistent gene expression in a cell and to modulate gene expression.

One preferred method according to the invention comprises contacting a cell with a vector comprising an origin of replication functional in mammalian cells located between first and second recombining sites located in parallel. Another preferred method comprises, in part, contacting a cell with a vector comprising first and second recombining sites in antiparallel orientations such that the vector is internalized by the cell. In both methods, the cell is further provided with a site-specific recombinase that effects recombination between the first and second recombining sites of the vector.

2000:61443 USPATFULL

Methods and vectors for site-specific recombination ΑN ΤI

McVey, Duncan L., Derwood, MD, United States IN Kovesdi, Imre, Rockville, MD, United States

GenVec, Inc., Gaithersburg, MD, United States (U.S. corporation) PA

20000516 US 6063627 PΙ

19980225 (9)

Continuation of Ser. No. WO 1996-US14123, filed on 27 Aug 1996 which is ΑI a continuation-in-part of Ser. No. US 1995-522684, filed on 1 Sep 1995, RLI now patented, Pat. No. US 5801030

Utility DTGranted FS

EXNAM Primary Examiner: Brusca, John S. LREP Leydig, Voit & Mayer, Ltd.

Number of Claims: 62 CLMN

Exemplary Claim: 1 ECL 50 Drawing Figure(s); 15 Drawing Page(s) DRWN

LN.CNT 2982

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 5 OF 9 USPATFULL T₄3

1998:104603 USPATFULL ACCESSION NUMBER:

Methods and vectors for site-specific recombination TITLE:

McVey, Duncan L., Derwood, MD, United States Kovesdi, Imre, Rockville, MD, United States INVENTOR(S): GenVec, Inc., Rockville, MD, United States (U.S. PATENT ASSIGNEE(S):

corporation)

KIND DATE NUMBER US 5801030 US 1995-522684 19980901 PATENT INFORMATION: 19950901 (8)

APPLICATION INFO .: Utility DOCUMENT TYPE: Granted

FILE SEGMENT: Ketter, James PRIMARY EXAMINER: Brusca, John S. ASSISTANT EXAMINER:

LEGAL REPRESENTATIVE: Leydig, Voit & Mayer, Ltd.

47 NUMBER OF CLAIMS: EXEMPLARY CLAIM: 7 Drawing Figure(s); 5 Drawing Page(s) NUMBER OF DRAWINGS: 2482 LINE COUNT: CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention provides methods for site-specific recombination in a cell, as well as vectors which can be employed in such methods. The AB methods and vectors of the present invention can be used to obtain persistent gene expression in a cell and to modulate gene expression. One preferred method according to the invention comprises contacting a cell with a vector comprising an origin of replication functional in mammalian cells located between first and second recombining sites located in parallel. Another preferred method comprises, in part, contacting a cell with a vector comprising first and second recombining sites in antiparallel orientations such that the vector is internalized by the cell. In both methods, the cell is further provided with a site-specific recombinase that effects recombination between the first and second recombining sites of the vector. 1998:104603 USPATFULL ANMethods and vectors for site-specific recombination TΙ McVey, Duncan L., Derwood, MD, United States ΙN Kovesdi, Imre, Rockville, MD, United States GenVec, Inc., Rockville, MD, United States (U.S. corporation) PΑ 19980901 US 5801030 PΙ 19950901 (8) US 1995-522684 ΑI Utility DTEXNAM Primary Examiner: Ketter, James; Assistant Examiner: Brusca, John S. Leydig, Voit & Mayer, Ltd. LREP Number of Claims: 47 CLMN Exemplary Claim: 1 ECL 7 Drawing Figure(s); 5 Drawing Page(s) DRWN LN.CNT 2482 CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 6 OF 9 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1 1999:86917 BIOSIS ACCESSION NUMBER: PREV199900086917 DOCUMENT NUMBER: TrfA dimers play a role in copy-number control of RK2 TITLE: replication. Toukdarian, Aresa E.; Helinski, Donald R. (1) AUTHOR(S): (1) Dep. Biology, Univ. Calif., San Diego, 9500 Gilman CORPORATE SOURCE: Drive, La Jolla, CA 92093-0322 USA Gene (Amsterdam), (Nov. 26, 1998) Vol. 223, No. 1-2, pp. SOURCE: 205-211. ISSN: 0378-1119. Article DOCUMENT TYPE: English Copy-number regulation of the broad-host-range plasmid RK2 is dependent on LANGUAGE: AB the plasmid-encoded initiator protein, TrfA, and the RK2 origin of replication. The handcuffing model for copy-number control proposes that TrfA-bound oris reversibly couple to prevent the further initiation of plasmid replication when the copy number in vivo is at or above the replicon-specific copy number. TrfA mutants have been isolated which allow for oriV replication at elevated copy numbers. To better understand the mechanism of 'handcuffing', the copy-up TrfA(G254D/S267L) mutant was characterized further. In the present study we show by size exclusion chromatography and native gel electrophoresis that unlike wt TrfA which is largely dimeric, purified His6-TrfA(G254D/S267L) is primarily monomeric. In vivo, TrfA33(G254D/S267L) supports replication of an RK2 ori plasmid in

trans at a greatly elevated copy number, while in cis the

expression of either of two previously isolated DNA-binding defective

plasmid exhibits runaway replication. However,

TrfA mutants, TrfA33(P151S) or TrfA33(S257F), in a cell transformed with a mini-RK2 replicon encoding TrfA33(G254D/S267L) results in suppression of the runaway phenotype. His6-TrfA(P151S) and His6-TrfA(S257F) purify as dimers, and when expressed in vivo are incapable of supporting RK2 plasmid replication. In contrast, combination of the trfA(P151S) or trfA(S257F) mutation with the trfA(G254D/S267L) mutations results in the expression of mutant TrfA proteins which are mainly monomers and which can no longer restore copy control to replication directed by TrfA33(G254D/S267L) in vivo. On the basis of these findings a handcuffing model is proposed, whereby oriv-bound TrfA monomers are coupled by dimeric TrfA molecules. 1999:86917 BIOSIS PREV199900086917 TrfA dimers play a role in copy-number control of RK2 replication. Toukdarian, Aresa E.; Helinski, Donald R. (1) (1) Dep. Biology, Univ. Calif., San Diego, 9500 Gilman Drive, La Jolla, CA 92093-0322 USA Gene (Amsterdam), (Nov. 26, 1998) Vol. 223, No. 1-2, pp. 205-211. ISSN: 0378-1119. Article English ANSWER 7 OF 9 SCISEARCH COPYRIGHT 2002 ISI (R) 95:173581 SCISEARCH ACCESSION NUMBER: THE GENUINE ARTICLE: QK441 A MODEL FOR COPY NUMBER CONTROL OF THE PLASMID R1 TITLE: EHRENBERG M (Reprint); SVERREDAL A AUTHOR: BIOMED CTR, DEPT MOLEC BIOL, BOX 590, S-75124 UPPSALA, CORPORATE SOURCE: SWEDEN (Reprint); MIC, DEPT SCI COMP, S-75104 UPPSALA, SWEDEN COUNTRY OF AUTHOR: SWEDEN JOURNAL OF MOLECULAR BIOLOGY, (03 MAR 1995) Vol. 246, No. SOURCE: 4, pp. 472-485. ISSN: 0022-2836. Article; Journal DOCUMENT TYPE: FILE SEGMENT: LIFE LANGUAGE: ENGLISH 22 REFERENCE COUNT: *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS* A new model for copy numb er control of the plasmid R1 has been develop ed. It takes into account that initiation of replication of R1 requires a large number of **cis**-acting proteins (RepA). The theory explains how plasmid production rates respond to shifts in external conditions. It predicts the observed ''eclipse'' times between two plasmid duplications as well as the replication time for ''runaway'' plasmids lacking the antisense inhibitor CopA. The model also describes how the use of many cis-acting RepAs can lead to a tight coupling between cell and plasmid cycles that minimizes the rate of the The results may be used as a guideline for construction of low copy number plasmids with high maintenance stability. 95:173581 SCISEARCH ΑN The Genuine Article (R) Number: QK441 GA A MODEL FOR COPY NUMBER CONTROL OF THE PLASMID R1 TΙ EHRENBERG M (Reprint); SVERREDAL A ΑU BIOMED CTR, DEPT MOLEC BIOL, BOX 590, S-75124 UPPSALA, SWEDEN (Reprint); CS MIC, DEPT SCI COMP, S-75104 UPPSALA, SWEDEN SWEDEN CYA JOURNAL OF MOLECULAR BIOLOGY, (03 MAR 1995) Vol. 246, No. 4, pp. 472-485. ISSN: 0022-2836. Article; Journal DT FS LIFE ENGLISH LA Reference Count: 22 REC *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*

AN

DN

ΤI

ΑU CS

SO

DT

LA

L3

ΆR

ANSWER 8 OF 9 CAPLUS COPYRIGHT 2002 ACS 1987:97098 CAPLUS ACCESSION NUMBER: 106:97098

DOCUMENT NUMBER:

Copy number control of DNA replication in SV40-BPV TITLE:

hybrid replicons

Roberts, James M.; Weintraub, H. AUTHOR(S):

Dep. Genet., Fred Hutchinson Cancer Res. Cent., CORPORATE SOURCE:

Seattle, WA, 98104, USA

Cancer Cells (1986), 4(DNA Tumor Viruses: Control SOURCE:

Gene Expression Replication), 555-9

CODEN: CACEEG; ISSN: 0743-2194

Journal DOCUMENT TYPE: English LANGUAGE:

An anal. was made of DNA sequences that function in replication control. Simian virus 40 (SV40) demonstrates a replication pattern that is uncoupled from the host cell's regulatory mechanisms so that each viral genome replicates multiple times within each cell cycle. Bovine papillomavirus (BPV), however, replicates in synchrony with the host cell genome, thus displaying a regulated form of replication. To approach the mechanisms of replication control, a simple model system consisting of SV40 and BPV DNA sequences linked to create a hybrid replicon was designed. In this configuration, the BPV mode of replication is dominant to that of SV40. This system defined those sequences in BPV that are able to impose replication control onto SV40 runaway replication. The BPV replication control system involves at least

three elements. Two cis-acting sequences required for replication control are closely assocd. with BPV replication origins. A third sequence encodes a trans-acting product.

1987:97098 CAPLUS AN

106:97098 DN

Copy number control of DNA replication in SV40-BPV hybrid replicons TΙ

Roberts, James M.; Weintraub, H.

Dep. Genet., Fred Hutchinson Cancer Res. Cent., Seattle, WA, 98104, USA ΑU

Cancer Cells (1986), 4(DNA Tumor Viruses: Control Gene Expression CS SO Replication), 555-9

CODEN: CACEEG; ISSN: 0743-2194 Journal

DTEnglish LA

ANSWER 9 OF 9 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 2

1985:232610 BIOSIS ACCESSION NUMBER:

BA79:12606 DOCUMENT NUMBER:

CIS-ACTING MUTATIONS THAT AFFECT ROP PROTEIN TITLE:

CONTROL OF PLASMID COPY NUMBER.

MOSER D R; MA D; MOSER C D; CAMPBELL J L AUTHOR(S):

DEP. OF CHEMISTRY, CALIFORNIA INST. OF TECHNOLOGY, CORPORATE SOURCE:

PASADENA, CA 91125.

PROC NATL ACAD SCI U S A, (1984) 81 (14), 4465-4469. SOURCE:

CODEN: PNASA6. ISSN: 0027-8424.

BA; OLD FILE SEGMENT: English LANGUAGE:

Several pMB1 derivatives provide a trans-acting function that can suppress AΒ lethal runaway replication of a temperature-sensitive copy-number mutant of NTP1 [in Escherichia coli]. Deletion analysis indicates that the region of the pMB1 genome that contains the rop gene is required for this suppression. Mutant derivatives of the temperature-sensitive copy-number mutant plasmid whose conditional lethal phenotype is not suppressed in trans by the region encoding the rop gene were isolated. These rop-insensitive derivatives contain single nucleotide changes within the RNA I coding region.

1985:232610 BIOSIS AN

BA79:12606 DN

CIS-ACTING MUTATIONS THAT AFFECT ROP PROTEIN CONTROL OF PLASMID TI

COPY NUMBER.

ΑU

MOSER D R; MA D; MOSER C D; CAMPBELL J L
DEP. OF CHEMISTRY, CALIFORNIA INST. OF TECHNOLOGY, PASADENA, CA 91125.
PROC NATL ACAD SCI U S A, (1984) 81 (14), 4465-4469.
CODEN: PNASA6. ISSN: 0027-8424. CS

SO